AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of dynamically adjusting the transmission rate of a mobile station, comprising:

receiving periodic load indications from a base station;

calculating a load tracking value based on two or more periodic load indications;

determining a rate change probability as a function of the load tracking value; and

selectively changing the transmission rate of the mobile station responsive to a current rate control command based on the rate change probability, by comparing the rate change probability to a random probability value, and adjusting the data transmission rate of the mobile station based on the outcome of the comparison.

2. (Original) The method of claim 1 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a weighted average of two or more periodic load indications.

3. (Previously Presented) The method of claim 2 wherein the periodic load indications are received from said base station at a predetermined rate control interval, and wherein calculating a weighted average of two or more periodic load indications comprises calculating a weighted average of a current periodic load indication for a current rate control interval and at least one previous periodic load indication for a previous rate control interval.

4. (Original) The method of claim 2 wherein calculating a weighted average of two or more periodic load indications comprises calculating the weighted average with an exponential decay function.

5. (Original) The method of claim 1 wherein calculating a load tracking value based on two or more periodic load indications comprises calculating a running average of two or more periodic load indications over a sliding time window.

6. (Previously Presented) The method of claim 5 wherein the running average is a weighted average.

7. (Original) The method of claim 1 wherein calculating a load tracking value based on two or more periodic load indications comprises evaluating a continuous load tracking function that converts discrete periodic load indications from the base station to a continuous load tracking value.

8. (Original) The method of claim 1 wherein determining a rate change probability as a function of the load tracking value comprises calculating the rate change probability based on the distance of the load tracking value from a target load tracking value.

9. (Original) The method of claim 8 wherein the rate change probability increases with distance over at least a defined range of load tracking values.

10. (Original) The method of claim 9 wherein the rate change probability varies linearly over the defined range of load tracking values.

11. (Original) The method of claim 10 wherein the defined range is the entire range of possible values of the load tracking function.

12. (Original) The method of claim 1 wherein determining a rate change probability as a function of the load tracking value comprises scaling the load tracking value to generate the rate change probability.

13. (Original) The method of claim 1 wherein the rate change probability is a continuous rate change probability.

14. (Original) The method of claim 1 wherein determining a rate change probability as a function of the load tracking value comprises taking the load tracking value as the rate change probability over at least a defined range of load tracking values.

15. Cancelled.

16. (Original) The method of claim 1 further comprising:

determining a sliding window in the range of possible load tracking values;

comparing the load tracking value to the sliding window to obtain a comparison result; and

determining the rate change probability based on an outcome of the comparison result.

17. (Original) The method of claim 16 wherein determining the rate change probability based on an outcome of the comparison result comprises setting the rate change probability dependent on whether the load tracking value is within the sliding window.

18. (Original) The method of claim 17 wherein setting the rate change probability dependent on whether the load tracking value is within the sliding window comprises setting the rate change probability to zero when the load tracking value is within the sliding window.

19. (Original) The method of claim 16 wherein determining a sliding window in the range of possible load tracking values comprises determining the position of the sliding window in the load tracking range dependent on the current transmission rate of the mobile station.

20. (Previously Presented) The method of claim 16 wherein determining a sliding window in the range of possible load tracking values comprises determining the position of the sliding window in the load tracking range dependent on the current transmission power of the mobile station.

21. (Previously Presented) The method of claim 1 wherein determining a rate change probability is dependent on a user class associated with a user of the mobile station.

22. (Original) The method of claim 1 wherein determining a rate change probability is dependent on a quality of service criteria.

23. (Currently Amended) A mobile station comprising:

a receiver for receiving periodic load indications from a base station;

a transmitter for transmitting signals to the base station at a variable data transmission rate dependent on the load indications;

a controller to vary the data transmission rate of the mobile station, said controller operative to:

calculate a load tracking value based on two or more periodic load indications; determine a rate change probability as a function of the load tracking value; and selectively change the data transmission rate of the mobile station responsive to a current rate control command based on the rate change probability, by comparing the rate change probability to a random probability value, and adjusting the data transmission rate of the mobile station based on the outcome of the comparison.

24. (Previously presented) The mobile station of claim 23 wherein the controller calculates the load tracking value by calculating a weighted average of two or more periodic load indications.

25. (Previously Presented) The mobile station of claim 24 wherein the periodic load indications are received from said base station at a predetermined rate control interval, and wherein the controller calculates the weighted average of a current periodic load indication for a current rate control interval and at least one previous periodic load indication for a previous rate control interval.

26. (Previously presented) The mobile station of claim 24 wherein the controller calculates the weighted average with an exponential decay function.

27. (Previously presented) The mobile station of claim 23 wherein the controller calculates the load tracking value by calculating a running average of two or more periodic load indications over a sliding time window.

28. (Previously presented) The mobile station of claim 27 wherein the running average is a weighted average.

29. (Previously presented) The mobile station of claim 23 wherein the controller calculates the load tracking value by evaluating a continuous load tracking function that converts discrete periodic load indications from the base station to a continuous load tracking value.

30. (Previously presented) The mobile station of claim 23 wherein the controller determines a rate change probability based on the distance of the load tracking value from a target load tracking value.

31. (Previously presented) The mobile station of claim 30 wherein the rate change probability increases with distance over at least a defined range of load tracking values.

32. (Previously presented) The mobile station of claim 31 wherein the rate change probability varies linearly over the defined range of load tracking values.

33. (Previously presented) The mobile station of claim 32 wherein the defined range is the entire range of possible values of the load tracking function.

34. (Previously presented) The mobile station of claim 23 wherein the controller determines a rate change probability by scaling the load tracking value.

35. (Previously presented) The mobile station of claim 23 wherein the rate change probability is a continuous rate change probability.

36. (Previously presented) The mobile station of claim 23 wherein the controller takes the load tracking value as the rate change probability over at least a defined range of load tracking values.

37. Cancelled.

38. (Previously presented) The mobile station of claim 23 wherein the controller is further operative to:

determine a sliding window in the range of possible load tracking values;

compare the load tracking value to the sliding window to obtain a comparison result; and

determine the rate change probability based on an outcome of the comparison result.

39. (Previously presented) The mobile station of claim 38 wherein the controller sets the rate change probability dependent on whether the load tracking value is within the sliding window.

40. (Previously presented) The mobile station of claim 39 wherein the controller sets the rate change probability to zero when the load tracking value is within the sliding window.

41. (Previously presented) The mobile station of claim 38 wherein the controller determines a sliding window in the range of possible load tracking values dependent on the current transmission rate of the mobile station.

42. (Previously Presented) The mobile station of claim 38 wherein the controller determines a sliding window in the range of possible load tracking values dependent on the current transmission power of the mobile station.

43. (Previously presented) The mobile station of claim 23 wherein the controller determines a rate change probability dependent on a user class associated with a user of the mobile station.

44. (Previously presented) The mobile station of claim 23 wherein the controller determines a rate change probability dependent on a quality of service criteria.